CLAIMS

Having thus described our invention, what we claim as new and desire to secure by Letters Patent is:

1. An RF controlled thermostat/controller comprising:

the thermostat/controller including a microcontroller and a temperature sensor;

a superregenerative RF receiver which uses the temperature sensor of the thermostat for temperature stabilization of the superregenerative RF receiver while providing a very low power drain always-on receiver for RF remote control of the thermostat/controller;

a non-volatile memory for storing a digital value which is used is used, along with the temperature sensor output, to accurately tune the superregenerative RF receiver.

2. The RF controlled thermostat/controller of claim 1, wherein the microcontroller includes the non-volatile memory as a component thereof.

3. The RF controlled thermostat/controller of claim 1, wherein a tuning component used to accurately tune the superregenerative RF receiver includes the non-volatile memory as a component thereof.

4. The RF controlled thermostat/controller of claim 1, wherein the stored digital value from the non-volatile memory is input to a digital to analog converter, the analog output of which is used to adjust a tunable component which regulates the frequency of the superregenerative RF receiver.

5. The RF controlled thermostat/controller of claim 1, wherein the stored digital value from the non-volatile memory is input to a digital to analog converter, the analog

output of which is used to adjust a tunable varactor diode which regulates the frequency of the superregenerative RF receiver.

6. The RF controlled thermostat/controller of claim 1, wherein the stored digital value from the non-volatile memory is a direct input to a digitally controlled tunable component which regulates the frequency of the superregenerative RF receiver.

7. The RF controlled thermostat/controller of claim 1, wherein the stored digital value from the non-volatile memory is a direct input to a digitally switched tuning capacitor which regulates the frequency of the superregenerative RF receiver.

8. The RF controlled thermostat/controller of claim 1, wherein the stored digital value from the non-volatile memory is a direct input to a series of digitally switched tuning capacitors which regulate the frequency of the superregenerative RF receiver.

9. The RF controlled thermostat/controller of claim 1, wherein a non-volatile digitally controlled capacitor component includes the non-volatile memory.

10. The RF controlled thermostat/controller of claim 9, wherein the non-volatile digitally controlled capacitor component includes an EEPROM non-volatile memory.

11. A method of providing RF control for a thermostat/controller including a microcontroller and a temperature sensor comprising:

using the temperature sensor of the thermostat for temperature stabilization of a superregenerative RF receiver which provides a very low power drain always-on receiver for RF remote control of the thermostat/controller;

storing a digital value in a non-volatile memory which is used is used, along with the temperature sensor output, to accurately tune the superregenerative RF receiver.

12. The method of claim 11, including storing a digital value in a non-volatile memory of the microcontroller.

13. The method of claim 11, including storing a digital value in a non-volatile memory of a tuning component used to accurately tune the superregenerative RF receiver.

14. The method of claim 11, including applying the stored digital value from the non-volatile memory as an input to a digital to analog converter, the analog output of which is used to adjust a tunable component which regulates the frequency of the superregenerative RF receiver.

15. The method of claim 11, including applying the stored digital value from the non-volatile memory as an input to a digital to analog converter, the analog output of which is used to adjust a tunable varactor diode which regulates the frequency of the superregenerative RF receiver.

16. The method of claim 11, including applying the stored digital value from the non-volatile memory as a direct input to a digitally controlled tunable component which regulates the frequency of the superregenerative RF receiver.

17. The method of claim 11, including applying the stored digital value from the non-volatile memory as a direct input to a digitally switched tuning capacitor which regulates the frequency of the superregenerative RF receiver.

18. The method of claim 11, including applying the stored digital value from the non-volatile memory as a direct input to a series of digitally switched tuning capacitors which regulate the frequency of the superregenerative RF receiver.

19. The method of claim 11, including providing the non-volatile memory in a non-volatile digitally controlled capacitor component.

20. The method of claim 11, including providing the non-volatile memory in an EEPROM in a non-volatile digitally controlled capacitor component.